

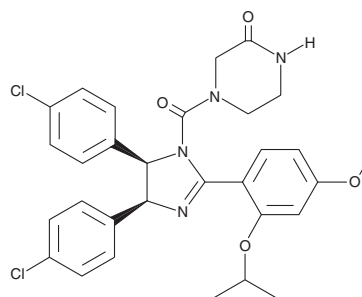
# PRODUCT INFORMATION



## (-)-Nutlin-3

Item No. 18585

**CAS Registry No.:** 675576-98-4  
**Formal Name:** 4-[[[(4S,5R)-4,5-bis(4-chlorophenyl)-4,5-dihydro-2-[4-methoxy-2-(1-methylethoxy)phenyl]-1H-imidazol-1-yl]carbonyl]-2-piperazinone  
**Synonym:** Nutlin 3a  
**MF:** C<sub>30</sub>H<sub>30</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>4</sub>  
**FW:** 581.5  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

(-)-Nutlin-3 is supplied as a crystalline solid. A stock solution may be made by dissolving the (-)-nutlin-3 in the solvent of choice, which should be purged with an inert gas. (-)-Nutlin-3 is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 50 mg/ml.

(-)-Nutlin-3 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (-)-nutlin-3 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (-)-Nutlin-3 has a solubility of approximately 0.1 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

(-)-Nutlin-3 is an inhibitor of the protein-protein interaction between p53 and Mdm2 (IC<sub>50</sub> = 0.09 μM).<sup>1</sup> It increases p53 levels, induces apoptosis, and reduces cell viability in HCT116, SJSA-1, and RKO cells that express wild-type p53 but not MDA-MB-435 or SW480 cells expressing mutant p53. (-)-Nutlin-3 (200 mg/kg) reduces tumor volume in SJSA-1, MHM, LNCaP, and 22Rv1 mouse xenograft models.<sup>2</sup>

### References

1. Vassilev, L.T., Vu, B.T., Graves, B., *et al.* In vivo activation of the p53 pathway by small-molecule antagonists of Mdm2. *Science* **303**(5659), 844-848 (2004).
4. Tovar, C., Rosinski, J., Filipovic, Z., *et al.* Small-molecule Mdm2 antagonists reveal aberrant p53 signaling in cancer: Implications for therapy. *Proc. Natl. Acad. Sci. USA* **103**(6), 1888-1893 (2006).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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